REMARKS

1.   <u>Claims 1-4, 6-17, 19-30, and 32-39 are Patentable Over the Cited Art</u>

The Examiner rejected claims 1-4, 6-17, 19-30, and 32-39 as obvious (35 U.S.C. §103) over Smith '156 (U.S. Patent No. 5,964,156) and Smith '790 (U.S. Patent No. 5,790,790). Applicants traverse for the following reasons.

Amended independent claims 1, 14, and 27 concern workflow management for creating and delivering output material, comprising: generating a customer record to include fields specifying at least one product, customer preferences, and a selected delivery option indicating a method to deliver generated output material on the product specified in the customer record; adding a job record including a status field to a job status table for the customer record; setting the added job record status to a first status; processing a selected job in the job status table; invoking a first worker if the selected job has the first status; generating, with the first worker, output material from processing the product and customer preference fields in the customer record for the selected job; setting the status for the selected job in the job status table to a second status after generating the output material with the first worker; invoking a second worker if the selected job has the second status; determining, with the second worker, a selected one of a plurality of delivery options from the customer record for the selected job; and transmitting, with the second worker, the output material via the determined delivery option to the customer specified in the customer record.

Applicants amended claims 1, 14, and 17 to clarify that the output method in the customer record is a "delivery option".

The Examiner cited the "medium name" described in col. 9, lines 39-41 of Smith '156 as teaching the requirement that the generated customer record includes a selected output method to deliver generated output material on the product specified in the customer record. (Second Office Action, pg. 3). Applicants traverse.

The cited "medium name" provides a type or size of medium for the output. This is different from the claimed "delivery option", which indicates a way to deliver the output. Note

claims 1, 14, and 27 require that the output material is transmitted via the delivery option. The cited medium is just an output medium on which the job is printed, and thus cannot be used to transmit material as claimed. For this reason, the cited Smith '176 fails to teach the claimed customer record, including a product, customer preferences and the delivery option.

The Examiner cited the process of Smith '156 in cols. 10-11 for selecting jobs. The cited col. 11 discusses how a job picker checks a job on the job list to see if it passes preference tests. (Smith '156, col. 11 ,lines 1-45) If a selected job passes all preference checks, then the job is added to one of four second pass job lists, based on priority. (Col. 11, lines 46-52) The job picker's second pass then picks jobs in the second pass job lists according to priority to process. (Col. 11, lines 53-65).

Nowhere does the cited Smith '156 anywhere teach the claim requirements of setting a job to a first status in a job table and then process a job from the job status table that has the first status. Instead, the cited job picker of Smith '156 only mentions adding a job to a second pass job list based on the job's priority. Nowhere is there any teaching or suggestion of setting the jobs added to these cited second pass job lists to a first status and then invoking a worker on the job in the job status table if the job has the first status. Instead, the cited Smith '156 just mentions accessing jobs from the second pass job list, not accessing those jobs having a first status as claimed. In the cited Smith '156, once the jobs are added the second pass job lists based on priority they are selected, no check is made as claimed to select those having a first status that is set when the job is added to the job status table as claimed.

Thus, for all the above reasons, the cited Smith '156 nowhere teaches or suggests the claim requirements of setting a job record status to a first status that is added to the job status table and then invoking a first worker if the selected job has the first status. Instead, the cited Smith '156 just processes jobs in the second pass job list. The cited Smith '156 nowhere suggests that a check is made for a first status set when the job is added to the job status table as claimed.

The Examiner cited FIG. 6C of Smith '156 as teaching the claim requirement of setting the status for the selected job in the job status table to a second status after generating the output

material with the first worker; invoking a second worker if the selected job has the second status. Applicants traverse. (Second Office Action, pg. 3) Applicants traverse.

The cited FIG. 6C discusses how the job is handled by checking a deferral value, and after a deferral preference has been reached, a job is picked to image. (Smith '156, col. 12, lines 8-20) Nowhere in this cited FIG. 6C is there any teaching or suggestion of the claim requirement of setting a job in the job status table to a second status after generating the output with an invoked first worker. In fact, in FIG. 6C the job output has not yet been generated as FIG. 6C concerns managing a deferral, not setting a second status after generating output for a job as claimed.

The Examiner further cited FIG. 6C as teaching the claim requirement of invoking a second worker if the selected job has the second status. (Second Office Action, pg. 3) Applicants traverse.

As mentioned, the cited FIG. 6C discusses a deferral operation and then processing a job after the deferral period. Nowhere does this cited FIG. 6C teach or suggest the claim requirements of invoking a second worker if the job has a second status that would have been set after generating the output material. In fact, FIG. 6C teaches away from this requirement because FIG. 6C does not discuss processing the job after output has been generated for the job by the first worker. Instead, the cited FIG. 6C concerns handling a deferral before the image for the job is generated.

The Examiner found that FIG. 7 of Smith '790 teaches the claim requirement of determining, with the second worker, a selected one of a plurality of delivery options from the customer record for the selected job and transmitting, with the second worker, the output material via the determined delivery option to the customer specified in the customer record. (Second Office Action, pgs. 3-4) Applicants traverse.

The cited FIG. Of Smith '790 just shows different transmittal mechanisms. Nowhere does the cited Smith '790 nor Smith '156 anywhere teach or suggest determining the delivery option indicated in the customer record for the job having the second status and then transmitting the output via the determined delivery option with a second worker. Instead, Smith '790 just

shows transmitting output via different transmission ways. Nowhere do the cited Smiths anywhere teach or suggest the claimed requirements concerning maintaining information in a customer record that is processed in a jobs status table, such that the job is processed and transmitted via a delivery option indicated in the customer record based on statuses associated with the job in the job status table.

Accordingly, Applicants submit that claims 1, 14, and 27 are patentable over the cited Smith '156 and Smith '790 because these references, alone and in combination, do not teach or suggest all the claim requirements.

Claims 2-4, 6-13, 15-17, 19-26, 28-30, and 32-39 are patentable over the cited art because they depend from one of claims 1, 14, and 27, which are patentable over the cited art for the reasons discussed above, and because the combination of the dependent claim limitations with the base and intervening claims provide further distinctions over the cited art. Moreover, the claims discussed below provide still further additional grounds of patentability over the cited art.

Claims 2, 15, and 28 depend from claims 1, 14, and 27 and further require that the first worker generates output material by: accessing at least one content file by processing a database table using values in the customer record associated with the selected job; and generating the content of each accessed file into the output material. The Examiner cited col. 8, lines 43-50 of Smith '156 as teaching the additional requirements of these claims. (Second Office Action, pg. 4) Applicants traverse.

The cited col. 8 mentions that when calling the job picker, media status objects are passed to the picker providing information on a print drive medium and a flag indicating whether the medium is loaded in the engine. This cited col. 8 concerns the status of media to use to print a job. Nowhere in the cited col. 8 is there any teaching or suggest of accessing a content file by using values in a customer record. Instead, the cited media status objects are just provided. Further, nowhere does the cited col. 8 anywhere mention generating content accessed from the database into the output using values from the customer record. Instead, the cited col. 8 does not concern the content, but the media that is available for use with the print job.

Accordingly, claims 2, 15, and 28 provide further grounds of distinction over the cited art because the cited art does not teach or suggest the additional requirements of these claims.

Claims 3, 16, and 29 depend from claims 2, 15, and 28 and further require that the first worker further performs: processing a template including queries of records in the database table; accessing at least one value in a field in one customer record to include in a query against the database table; and applying the query against the database table to determine a record associated with a file including fields matching the query, wherein the accessed file is associated with the determined record, and wherein generating the content into the output material comprises generating the content from the accessed file into the template, which forms the output material. The Examiner cited col. 8, lines 27-56 of Smith '156 as teaching the additional requirements of these claims. (Second Office Action, pg. 4) Applicants traverse.

Claims 3, 16, and 29 concern further details on how a database is processed to obtain content go generate into the output. These claims recite how a value from the customer record being processed is included in a query used to access the content from the database. The cited col. 8 of Smith concerns how a job picker routine maintains preferences for a job and uses the preferences to validate a job. Nowhere in the cited col. 8 is there any mention of querying a database using a value from the job (claimed customer record) being processed to generate actual content to include in the output. Instead, the cited col. 8 just concerns information the job picker uses to validate jobs selected from the queue to determine whether to select a job to image.

Accordingly, claims 3, 16, and 29 provide further grounds of distinction over the cited art because the cited art does not teach or suggest the additional requirements of these claims.

Claims 4, 17, and 30 depend from claims 1, 14, and 27 and further require that the first status is associated with the first worker and the second status is associated with the second worker, wherein the first and second workers further perform querying the job status table to access all jobs having the status associated with the worker. The Examiner cited the job picker routine of Smith '156 discussed in cols. 10-11 as teaching the additional requirements of these claims (Second Office Action, pg. 5) Applicants traverse.

Claims 4, 17, and 30 require first and second workers that separately process a job status table looking for jobs having the first and second status, respectively. The cited job picker is a single element. Further, the Examiner has not cited any part of the Smith '156 that teaches looking at the queue for jobs having the first and second status associated with the jobs. Instead, the cited job picker just accesses jobs from the list and determines whether they meet certain criteria.

Accordingly, claims 4, 17, and 30 provide further grounds of distinction over the cited art because the cited art does not teach or suggest the additional requirements of these claims.

Claims 7, 20, and 33 depend from claims 1, 14, and 27 and further require a worker transition table including a plurality of records, each indicating an input worker, a completion state, an output worker, and an output status. The input worker indicates the worker assigned to process the job, the completion state is a status indicated for the job after the input worker processes the job, the output worker is the worker that processes the job after having been processed by the input worker and resulting in the completion state, and the output state is the state to which the job status in the job status table is set. The job status table further indicates a current worker assigned to process the job, wherein setting the status for the selected job in the job status table comprises determining from the worker transition table one record having an input worker and completion state matching the current worker and the job status, respectively, and setting the status for the selected job to the output state and the current worker to the output worker.

The Examiner cited FIG. 5 and the job picker routine of Smith '156 as teaching the additional requirements of claims 7, 20, and 33. (Second Office Action, pgs. 5-6) Applicants traverse.

The cited FIG. 5 just discusses job output states and the definition of such states. The Examiner references the job picker routine as teaching the claimed worker transition table. However, although the job picker routine processes jobs in a queue, the Examiner has not cited any part of Smith '156 that teaches the claimed data structure of the work transition table that indicates an input work and an output work in each record of a worker transition table, where the

input worker is the worker that processes the job and the output worker is the worker that processes the job after having been processed by the input worker.

In fact, the cited Smith '156 teaches away from the use of a worker transition table indicating input and output routines for different job states because the cited Smith '156 just discusses a single job picker routine that performs the operations. Thus, there would be no need in Smith '156 for a worker transition table indicating input and output workers to process a job as claimed.

Further, nowhere does the cited Smith '156 anywhere disclose the claim requirement of determining one record in the worker transition table having an input worker and completion state matching the current worker and job status as claimed. Instead, the cited Smith '156 just discusses a single job picker routine that processes jobs in the lists regardless of their states, and checks whether the jobs in the list satisfy preferences.

Accordingly, because the cited Smith '156 does not disclose the specific requirements of the claimed worker transition table, claims 7, 20, and 33 provide additional grounds of patentability over the cited art.

Claims 10, 23, and 36 depend from claims 1, 14, and 27, respectively, and further require setting the status to a third status after adding the job entry in the job status table; invoking a data conditioning worker if the job status for the selected job is the third status; processing, with the data conditioning worker, the customer record to determine whether at least one value satisfies at least one condition; taking corrective actions, with the data conditioning worker, if the data in the customer record does not satisfy each condition; and setting the status of the selected job to the first status if the data in the customer record satisfies each condition.

The Examiner cited col. 10, lines 59-64 of Smith '156 as teaching the claim requirement of invoking a data conditioning worker if the job status for the selected job is a third status. (Second Office Action, pg. 6) Applicants traverse.

The cited col. 10 discusses the checking the job picker routine performs when deciding whether to process a job. Nowhere does the cited col. 10 anywhere suggest setting the job in the table to a third status and then invoking a conditioning worker to take corrective actions if the

third status is set. Applicants submit that the cited col. 10 nowhere teaches or suggests invoking a conditioning worker to take corrective actions with respect to a job as claimed.

Accordingly, claims 10, 23, and 36 provide additional grounds of patentability over the cited art.

2. Claims 5, 18, and 31 are Patentable Over the Cited Art

The Examiner rejected claims 5, 18, and 31 as obvious (35 U.S.C. §103) over Smith '156, Smith '790, and Marlin (U.S. Patent No. 5,778, 377) Applicants traverse for the following reasons.

First off, claims 5, 18, and 31 are patentable over the cited combination because they depend from claims 1, 14, and 27, which are patentable over the cited art for the reasons discussed above, and because the Examiner cited Marlin for the requirements added in the dependent claims, not the deficiencies of Smiths '156 and '790 with respect to independent claims 1, 14, and 27 discussed above. Moreover, the claims discussed below provide additional grounds of patentability over the cited art.

Claims 5, 18, and 31 depend from claim 1 and further require: determining, with the first and second workers, whether an error occurred while processing the selected job; setting, with the first and second workers, the status in the job status table for the selected job to an error status; invoking an error worker if the selected job has the error status; performing, with the error worker, error recovery operations for the selected job; and setting, with the error worker, the status of the selected job to one of the first and second statuses after the error recovery operation. The Examiner cited col. 4, lines 1-10 of Marlin as teaching the additional requirements of these claims. Applicants traverse.

The cited col. 4 of Marlin just mentions that error recovery procedures may be performed during a print job. Nowhere is there any teaching or suggestion of invoking an error worker that performs error recovery for a job and then sets the status of the processed job to one of the first and second statuses after the error recovery. Nowhere does the cited Marlin teach the claimed details concerning setting statuses for jobs in a job status table.

Accordingly, claims 5, 18, and 31 provide additional grounds of patentability over the cited art.

Conclusion

For all the above reasons, Applicant submits that the pending claims 1-39 are patentable over the art of record. Applicants submit that no additional fees are needed. Nonetheless, should any additional fees be required, please charge Deposit Account No. 50-0585.

The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

Dated: February 26, 2003

By: _____
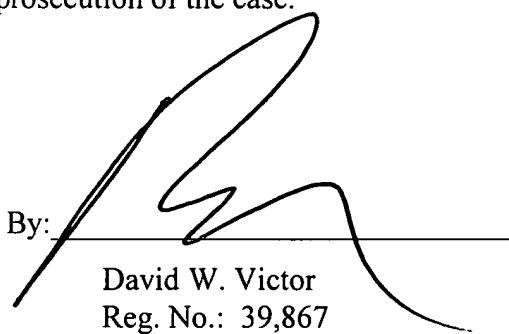
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Claims 1, 14, and 27 are amended as follows:

1.   (Twice Amended) A workflow management method for creating and delivering output material, comprising:

generating a customer record to include fields specifying at least one product, customer preferences, and a selected delivery option indicating a [output] method to deliver generated output material on the product specified in the customer record;

adding a job record including a status field to a job status table for the customer record;

setting the added job record status to a first status;

processing a selected job in the job status table;

invoking a first worker if the selected job has the first status;

generating, with the first worker, output material from processing the product and customer preference fields in the customer record for the selected job;

setting the status for the selected job in the job status table to a second status after generating the output material with the first worker;

invoking a second worker if the selected job has the second status;

determining, with the second worker, a selected one of a plurality of delivery options from the customer record for the selected job; and

transmitting, with the second worker, the output material via the determined delivery option to the customer specified in the customer record.

14.   (Amended) A workflow management system for creating and delivering output material, comprising:

means for generating a customer record to include fields specifying at least one product, customer preferences, and a selected <u>delivery option indicating a</u> [output] method to deliver generated output material on the product specified in the customer record;

means for adding a job record including a status field to a job status table for the customer record;

means for setting the added job record status to a first status;

means for processing a selected job in the job status table;

means for invoking a first worker if the selected job has the first status;

means for generating, with the first worker, output material from processing the product and customer preference fields in the customer record for the selected job;

means for setting the status for the selected job in the job status table to a second status after generating the output material with the first worker;

means for invoking a second worker if the selected job has the second status;

means for determining, with the second worker, a selected one of a plurality of delivery options from the customer record for the selected job; and

means for transmitting, with the second worker, the output material via the determined delivery option to the customer specified in the customer record.

27.   (Amended) An article of manufacture for use in a workflow management system for creating and delivering output material, the article of manufacture comprising computer readable storage media including a plurality of computer programs, including a first worker and second worker, embedded therein capable of causing at least one computer to perform:

generating a customer record to include fields specifying at least one product, customer preferences, and a selected <u>delivery option indicating a</u> [output] method to deliver generated output material on the product specified in the customer record;

adding a job record including a status field to a job status table for the customer record;

setting the added job record status to a first status;

processing a selected job in the job status table;

invoking the first worker if the selected job has the first status;

generating, with the first worker, output material from processing the product and customer preference fields in the customer record for the selected job;

setting the status for the selected job in the job status table to a second status after generating the output material with the first worker;

invoking the second worker if the selected job has the second status;

determining, with the second worker, a selected one of a plurality of delivery options from the customer record for the selected job; and

transmitting, with the second worker, the output material via the determined delivery option to the customer specified in the customer record.